

### **REMARKS**

Previously, claims 7, 8 and 9 were pending. Applicants have now cancelled claims 7 and 9 and have added new claim 10. Currently, claims 8 and 10 are pending. Claim 8 has been amended to remove the "(I)" label on the structure.

#### **I. Claim rejections under 35 U.S.C § 103**

Claims 7-9 were rejected under 35 U.S.C. §103(a) as allegedly obvious over WO95/08549 to Armour, *et al.*, ("Armour") in view of US Patent No. 6,117,855 to Carlson, *et al.*, ("Carlson").

The present invention relates to a method of treating social phobia by administering to a human in need thereof an effective amount of the NK-1 antagonist, [2-methoxy-5-(5-trifluoromethyl-tetrazol-1-yl-benzyl)]-([2S,3S]-2-phenyl-piperidin-3-yl)-amine.

The Office Action stated that Armour describes the use of the presently claimed NK-1 antagonist, [2-methoxy-5-(5-trifluoromethyl-tetrazol-1-yl-benzyl)]-([2S,3S]-2-phenyl-piperidin-3-yl)-amine for the treatment of psychoses such as anxiety. The Office Action also stated that Carlson teaches that various NK-1 receptor antagonists can also be used for the treatment of social phobia. The Office Action then concludes that it would have been obvious to use any and all NK-1 receptor antagonists as effective treatments for social phobia.

Applicants respectfully submit that the Office Action fails to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, the Patent Office must satisfy three criteria (MPEP 2143). First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify the reference. Secondly, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. Thirdly, the prior art reference must teach or suggest all the limitations of the claims.

In addressing the three criteria set forth above, Applicants point out below the differences between the present claims and the references cited in the Office Action.

1) One of skill in the art would have found no motivation to use the particular claimed compound to successfully treat social phobia. Indeed, Carlson teaches various

NK-1 antagonists, but does not particular recite the instant claimed compound. In addition, Carlson fails to even teach NK-1 antagonists having similar structures. For example, Carlson describes several groups of NK-1 antagonists that contain an oxy linker between a morpholinyl moiety and a phenyl moiety. Instead, the presently claimed NK-1 antagonist contains an amine linker between a piperdiny moiety and a phenyl moiety. Therefore, one of skill in art looking at the NK-1 antagonists in Carlson would not have been motivated to make at least two modifications to Carlson's compounds and also to expect that such modifications would have efficacy against social phobia. Applicants respectfully assert that the prior art, not applicant's disclosure, must teach, suggest, or provide an incentive to make the claimed compound. See *In re Dow Chemical Co. v. American Cyanamide Co.*, 837 F.2d 469, 5 USPQ 1529 (Fed Cir. 1987).

2) One of skill in the art would have had no reasonable expectation of success that administering any NK-1 antagonist, which had efficacy for anxiety would also have efficacy for treating social phobia. Applicants direct the Examiner's attention to the following reference, a copy of which is enclosed with this submission. See ACNP 46<sup>th</sup> Annual Meeting Program Book, Hot Topics – Clinical, "*Clinical Development of the NK-1 Antagonist LY686017: Human PET Study and Randomized, Double-Blind Clinical Trial in Social Anxiety Disorder*", December 9-13, 2007. This reference demonstrates an example where the efficacy of a potent and selective NK-1 antagonist in preclinical anxiety models did not translate into clinical efficacy in social anxiety disorder (social phobia). The reference in the background section states that the, "...NK-1 antagonist LY686017 showed activity in preclinical models of anxiety, reverting substance P induced stress behavior with maximal effects at >80% NK-1 receptor occupancy". However, under the Results section the reference reveals that the "...MMRM analysis of baseline to endpoint changes did not reveal a statistical significant difference between LY686017 and placebo for the primary efficacy measure...". As a final comment, reported under the Discussion section, the authors reported that "...the data suggests further evaluation of LY686017 for the treatment of SAD [social anxiety disorder] is not warranted" [*emphasis added*]. Contrary to the Office Action's position, Applicants suggest that this reference would have led one of skill in the art away from blindly using any NK-1 antagonist for the treatment of social phobia. As a result, applicants respectfully submit that a person of ordinary skill would have had no reasonable

expectation of success after viewing both the Armour and Carlson references, and in fact, would likely have been led away from the applicants' claimed invention.

3) Also, Armour and Carlson taken together fail to teach or suggest all the limitations in applicants' claim 1, because the claimed compound is simply not listed in either reference as having efficacy in the treatment of social phobia. For at least these reasons, applicants submit that the pending claims are nonobvious over the cited rejections and respectfully request withdrawal of this rejection.

Applicants respectfully submit that the Office Action fails to establish a *prima facie* case of obviousness and that claims 8 and 10 are patentable over Armour and Carlson. Not only do Armour and Carlson fail to teach or suggest all the limitations of the claims, there is no motivation to modify either of the prior references, and there is no reasonable motivation of success. Withdrawal of this rejection, is therefore, respectfully requested.

## **II. Obviousness-type double patenting rejections**

Claims 7-9 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 19 and 20 of copending U.S. Patent Application No. 10/552,870 ('870). The Office Action stated that conflicting claims 19 and 20 (of the '870 application) are obvious in light of Applicant's claimed invention.

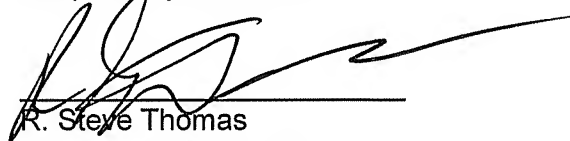
Claims 19 and 20 of the '870 application describe methods for treating depression or anxiety by administering to a human a combination of paroxetine and 2-methoxy-5-(5-trifluoromethyl-tetrazol-1-yl-benzyl)-([2S,3S]-2-phenyl-piperidin-3-yl)-amine, wherein the dose of each component is lower than normally expected to treat depression or anxiety.

Applicants submit that pending claims 8 and 9 of the present application describe a method for treating social phobia by administering an effective amount of 2-methoxy-5-(5-trifluoromethyl-tetrazol-1-yl-benzyl)-([2S,3S]-2-phenyl-piperidin-3-yl)-amine to a human. As stated above, Applicants contend that the treatment of social phobia is not *prima facie* obvious over a description of treating anxiety. Moreover, the '870 application's claims would lead one of skill in the art away from the present invention because of its recitation of 1) anxiety instead of social phobia, 2) combinations with paroxetine instead of the instant monotherapy, and 3) lower than expected dosages of

the combination instead of the an effective amount of 2-methoxy-5-(5-trifluoromethyl-tetrazol-1-yl-benzyl)-([2S,3S]-2-phenyl-piperidin-3-yl)-amine. Taken together, these differences indicate that there is no obvious overlap between the present claims and the '870 application; and therefore, applicants request favorable reconsideration of the double patenting rejection.

Applicants believe the present claims are in condition for allowance and such action is respectfully requested. If the Examiner has any outstanding issues with the pending claims, he is encouraged to telephone the undersigned at (919) 483-8406 for expeditious handling.

Respectfully submitted,

  
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